

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Olsen *et al.*

Appl. No. *To be assigned*  
(Divisional of U.S. Appl. No. 08/994,962;  
Filed: December 19, 1997)

Filed: *Herewith*

For: **Human Oncogene Induced  
Secreted Protein I**

Art Unit: *To be assigned*

Examiner: *To be assigned*

Atty. Docket: 1488.0440003/EKS/PSC

**Batch No. To be assigned**

**Letter to PTO Draftsman: Submission of Formal Drawings**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Submitted herewith are four (4) sheets of formal drawings with Figures 1A, 1B, 2 and 3, corresponding to the informal drawings submitted with the above-captioned application. Identification of the drawings is provided in accordance with 37 C.F.R. § 1.84(c). Acknowledgment of the receipt, approval, and entry of these formal drawings into this application is respectfully requested.

It is not believed that an extension of time is required, other than any already provided herewith. However, if an extension of time is needed to prevent abandonment of the application, then such extension of time is hereby petitioned. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this Letter is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

*Eric K. Steffe*  
*ccy 100,473*

*for* Eric K. Steffe  
Attorney for Applicants  
Registration No. 36,688

Date: July 9, 2001  
1100 New York Avenue, N.W.  
Suite 600  
Washington, D.C. 20005-3934  
(202) 371-2600

U.S. PATENT AND TRADEMARK OFFICE (USPTO) FORM 100 (Rev. 12-2000)

**Assignee: Human Genome Sciences, Inc.**

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1	TCCCATACAGGCCCCCACCATGAAGGGTTTCACAGCCACTCTCTTCTCTGGACTCTGAT	
1	MetLysGlyPheThrAlaThrLeuPheLeuTrpThrLeuI	60
	M K G F T A T L F L W T L I	14
61	TTTCCCAGCTGCAGTGGAGGCGGCGGTGGGAAAGCCTGGCCACACAGTGGTCTGTAG	
15	ePheProSerCysSerGlyGlyGlyGlyGlyLysAlaTrpProThrHisValValCysSe	120
	F P S C S G G G G G K A W P T H V V C S	34
121	CGACAGCGGCTTGGAAAGTGCTCTACCAGAGTTGCGATCCATTACAAGATTTTGGCTTTTC	
35	rAspSerGlyLeuGluValLeuTyrGlnSerCysAspProLeuGlnAspPheGlyPheSe	180
	D S G L E V L Y Q S C D P L Q D F G F S	54
181	TGTTGAAAAGTGTCCAAGCAATTAATCAAATATCAACATTAGATTTGGAATTATTCT	
55	rValGluLysCysSerLysGlnLeuLysSerAsnIleAsnIleArgPheGlyIleIleLe	240
	V E K C S K Q L K S N I N I R F G I I L	74
241	GAGAGAGGACATCAAAGAGCTTTTTCTTGACCTAGCTCTCATGTCTCAAGGCTCATCTGT	
75	uArgGluAspIleLysGluLeuPheLeuAspLeuAlaLeuMetSerGlnGlySerSerVa	300
	R E D I K E L F L D L A L M S Q G S S V	94
301	TTTGAATTTCTCCTATCCCATCTGTGAGGCGGCTCTGCCCAAGTTTTCTTCTGTGGAAG	
95	lLeuAsnPheSerTyrProIleCysGluAlaAlaLeuProLysPheSerPheCysGlyAr	360
	L N F S Y P I C E A A L P K F S F C G R	114
361	AAGGAAAGGAGAGCAGATTTACTATGCTGGGCTGTCAATAATCCTGAATTTACTATTCC	
115	gArgLysGlyGluGlnIleTyrTyrAlaGlyProValAsnAsnProGluPheThrIlePr	420
	R K G E Q I Y Y A G P V N N P E F T I P	134
421	TCAGGGAGAATACCAGGTTTTGCTGGAAGTGTACACTGAAAAACGGTCCACCGTGGCCTG	
135	oGlnGlyGluTyrGlnValLeuLeuGluLeuTyrThrGluLysArgSerThrValAlaCy	480
	Q G E Y Q V L L E L Y T E K R S T V A C	154
481	TGCCAATGCTACTATCATGTGCTCCTGACTGTGGCCTGTAGCAAAAATCACAGCCAGCTG	
155	sAlaAsnAlaThrIleMetCysSerEnd	540
	A N A T I M C S *	
541	CATCTCGTGGGACCTCCAAGCTCCTCTGACTGAACCTACTGTGGGAGGAGAAGCAGCTGA	162
		600

FIG. 1A

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601	TGACAGAGAGAGGCTCTACAAAGAAGCGCCCCAAAGAGTGCAGCTGCTAATTTTAGTCC	660
	-----+-----+-----+-----+-----+-----+	
661	CAGGACCAGACATCCCCAGACTCCACAGATGTAATGAAGTCCCCGAATGTATCTGTTTCT	720
	-----+-----+-----+-----+-----+-----+	
721	AAGGAGCCTCTTGGCAGTCCTTAAGCAGTCTTGAGGGTCCATCCTTTTTCTCTAATTGGT	780
	-----+-----+-----+-----+-----+-----+	
781	CGCCTCCCACCAGACTCACCTGCTTTTCAACTTTTTAGGAGTGCTTCCTCACAGTTACCA	840
	-----+-----+-----+-----+-----+-----+	
841	AGAAATAAAGAAAGCTGGCC	860
	-----+-----+	

Nucleotide sequence of Human MD-1 Homolog. Corresponding deduced amino-acid sequence shown below using standard three and one letter abbreviation.

**FIG.1B**

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Score = 344 (160.0 bits), Expect = 6.6e-44, P = 6.6e-44  
 Identities = 60/133 (45%), Positives = 86/133 (64%)

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Query:   27 WPTHVVCSDSGLEVLYQSCDPLQDFGFSVEKCSKQLKSNINIRFGIILREDIFELFLDLA  86
          WPTH VC +  LE+ Y+SCDP QDF FS+++CS          +IR ++LR+ IFEL+ +
Sbjct:   22 WPTH TVCKEENLEIYYKSCDPQQDFAFSIDRCSDVTTHTFDIRAAMVLRQSIKELYAKVD  81

Query:   87 LMSQGSSVLNFSYPICEAALPKFSFCGRRKGEQIYYAGPVNNPEFTIPQGEYQVLLKLYT  146
          L+  G +VL++S +C  L K  FCG++KGE +YY GP+      IPQG+Y +  L
Sbjct:   62 LIINGKTVLSYSETLCGPGLSKLIFCGKKKGEHLYYEGPITLGIKEIPQGDYTITARLTN  141

Query:   147 EKRSTVACANATI  159
          E R+TVACA+ T+
Sbjct:   142 EDRATVACADFTV  154
  
```

Sequence comparison between human MD-1 protein (upper line) and MD-1 protein from chicken (lower line).

FIG.2

ANTIGENIC REGIONS

Ser17-Thr29  
 Cys33-Glu39  
 Gln43-Gly52  
 Glu56-Asn67  
 Leu74-Leu83  
 Gln90-val94  
 Ser110-Ile120  
 Pro125-Gln139  
 Tyr145-Val152

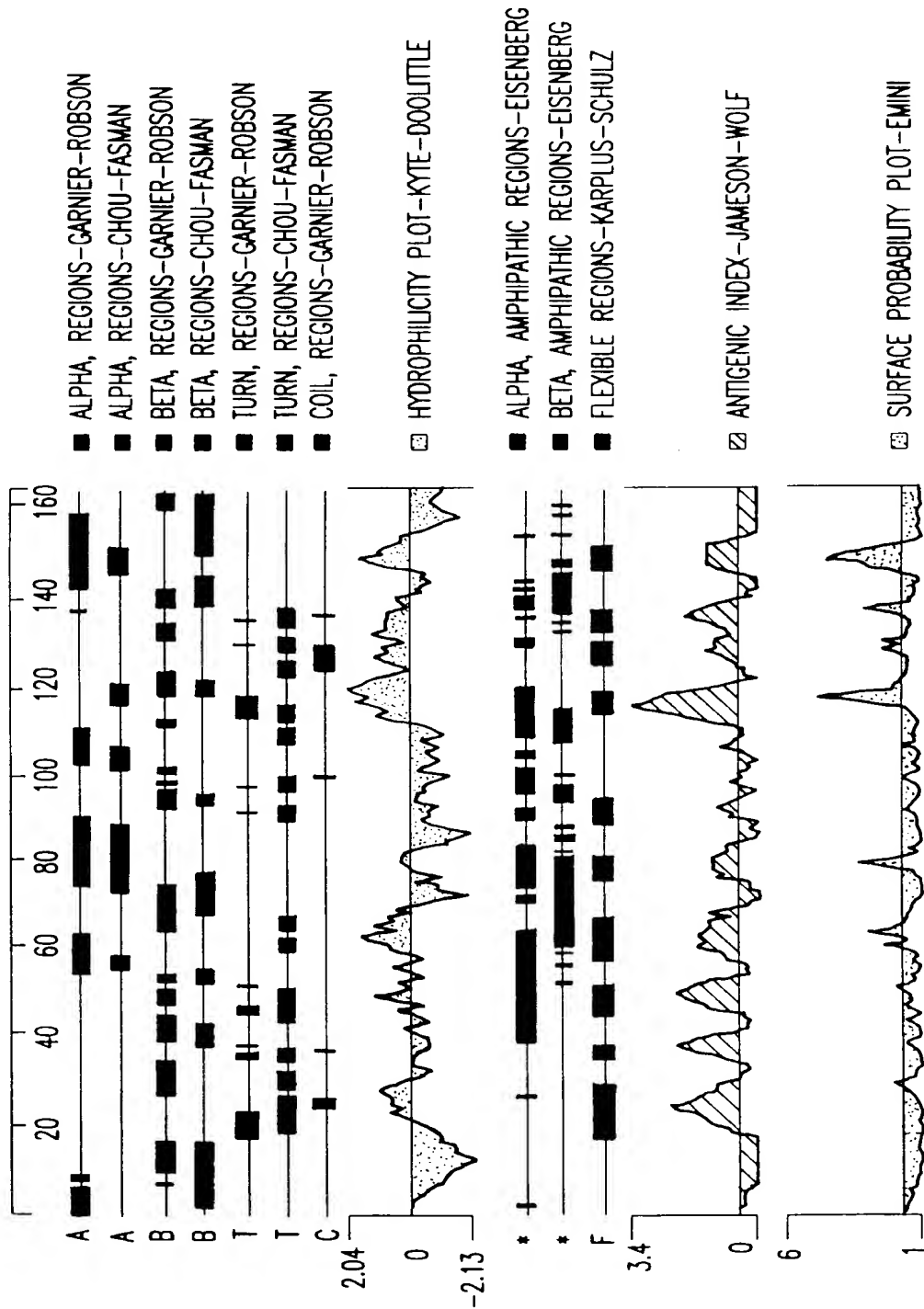


FIG.3